

Please amend claim 12 as follows:

12. (amended) A method of testing the effect on tissue samples of chemical substances as medicines, which comprises:

providing a detector comprising a plurality of microelectrodes on a substrate for contacting the tissue sample and detecting [the] an electrical property [properties] of said tissue [or cells] sample to which a chemical substance[s, microorganisms or viruses have] has been added and said plurality of microelectrodes further for applying an electric stimulus to the tissue sample;

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a' providing an image detection system for observing the visible properties of the tissue sample [or cells] from outside;

adding chemical substance to the tissue sample;

measuring the electrical or visible properties of the tissue [or cells when] sample before and after said addition of said chemical substance chemical substance[s, microorganisms or viruses have been added] to the tissue sample [or cells]; and

[judging from those two] comparing said electrical or visible properties before and after said addition of said chemical substance to determine whether said [properties whether the] added chemical substance[s, microorganisms or viruses have] has had an influence on the tissue sample [or cells].

Please amend claim 13 as follows:

13. (amended) A medicine testing device, comprising
an electrical measurement portion comprising a plurality of microelectrodes on a substrate for the measurement of [the] an electrical [properties] property of a tissue sample [or cells] to which said chemical substance[s, microorganisms or viruses have] has been added and said plurality of microelectrodes further for applying an electric stimulus to the tissue sample,
and

a visible properties detection portion for the measurement of visible properties of the tissue sample [or cells],

wherein the influence that the chemical substance[s, microorganisms or viruses have] has on the tissue sample [or cells] can be measured from the output of the electrical measurement portion and the visible properties detection portion.

Please add new claims 14-15:

14. (new) The method of claim 12 for testing the effect on tissue samples of chemical substances as medicines, wherein the step of adding chemical substance to the tissue sample comprises adding said chemical substance in an arbitrary concentration to the tissue sample.

15. (new) The device of claim 13 further comprising a system for adding said chemical substance to the tissue sample in an arbitrary concentration.

No new matter has been added by this amendment.

COMMENTS

The invention here is both a process and device for observing or measuring the differences found in a tissue sample --perhaps neural, perhaps muscle -- when the sample is contacted with a chemical substance which may be useful as a medicine. By measuring and comparing the differences, the overall efficacy or the specific efficacy of a chemical substance as a medicine may be determined.

Rejection Under 35 U.S.C. 112

Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being vague and indefinite. The Examiner notes that claim 12 contains the limitation "judging from those the properties whether the added chemical substances, microorganisms or viruses have had an